PORTUGUESE JOURNAL OF PEDIATRICS

PERMANYER

Check for updates

IMAGES IN PEDIATRICS

Ankyloblepharon filiforme adnatum: from curiosity to early treatment

Anquilobléfaro filiforme congénito: da curiosidade ao tratamento precoce

Mário Rui Correia[1], Joana Queirós[2], Ana Isabel Barros[1], and Hélder Morgado[1]*

[1]Serviço de Cirurgia Pediátrica; [2]Serviço de Pediatria. Centro Hospitalar Universitário de Santo António, Unidade Local de Saúde de Santo António, Porto, Portugal

Keypoints

What is known
- Ankyloblepharon is a rare congenital malformation of the eyelids.
- Physical examination is diagnosis and early treatment is recommended.

What is added
- Physical examination displayed as in the image is enough to make the diagnosis.
- Awareness of this condition is key to answer parents doubts and to promptly treat it.

Ankyloblepharon filiforme adnatum (AFA) is defined as the partial or complete fusion of the eyelids. It is a rare condition, with an estimated incidence of 4.4 per 100,000 neonates[1], that can interfere with vision and increase the risk of amblyopia. Currently, the widely accepted theory is that this condition is due to temporary epithelial cell cycle arrest and rapid mesenchymal proliferation, which leads to the abnormal fusion of the eyelids[2]. AFA may be associated with other malformations, such as central nervous system and/or cardiac anomalies, or it may occur as an isolated condition[3]. Physical examination is key for diagnosis, and early treatment is essential to prevent future complications.

The neonate was full term, and the pregnancy was monitored and uneventful. She was born via eutocic delivery at 40 weeks and five days with an Apgar score of 9/10/10 at the 1st, 5th and 10th minutes after birth, weighing 4090 grams (P85 – 97), measuring 50 cm in length (P50 – 85), and with a head circumference of 35.5 cm (P85).

During the physical examination at birth, a fibrous band of tissue was observed in the left eye that extended from the upper eyelid to the lower (Fig. 1), limiting the interpalpebral opening and confirming the diagnosis of congenital filiform ankyloblepharon. On the first day of life, this fibrous adhesion was successfully sectioned off with a cold blade, and no complications were observed. Local anesthesia or ophthalmic ointments were not required, and both short- and long-term outcomes were excellent (Fig. 2)[4]. Oculomotricity, pupillary reflexes, and ocular opening after the intervention were all normal. No other malformations were suspected during the remaining objective examination.

In conclusion, AFA can present as an isolated ocular anomaly or as a manifestation of a multisystemic syndrome. Objective examination, coupled with the recognition of this condition, is crucial for diagnosis, and early treatment can prevent complications that would otherwise be avoidable.

***Correspondence:**
Mário Rui Correia
E-mail: marioruipcorreia@gmail.com

Received: 18-08-2023
Accepted: 10-09-2024
https://pjp.spp.pt

Available online: 26-02-2025
Port J Pediatr. 2025;56(4):243-244
DOI: 10.24875/PJP.23000026

Figure 1. A fibrous band tissue extending between the upper and lower eyelids of the left eye.

Figure 2. 2-year-old child after neonatal ankyloblepharon section.

Previous presentations

This case was presented at the 22nd Congresso Nacional de Pediatria.

Author contributions

M. Rui Correia: conception and design of the study, report, review or other type of work or paper; acquisition of data either from patients, research studies, or literature; analyisis or interpretation of data either from patients, research studies, or literature; drafting the article; critical review of the article for important intellectual content; final approval of the version to be published; agreement to be accountable for the accuracy or integrity of the work. J. Queirós: conception and design of the study, report, review or other type of work or paper; acquisition of data either from patients, research studies, or literature; drafting the article; final approval of the version to be published; agreement to be accountable for the accuracy or integrity of the work. A. Barros: drafting the article; critical review of the article for important intellectual content; final approval of the version to be published; agreement to be accountable for the accuracy or integrity of the work. H. Morgado: conception and design of the study, report, review or other type of work or paper; critical review of the article for important intellectual content; final approval of the version to be published; agreement to be accountable for the accuracy or integrity of the work.

Funding

None.

Conflicts of interest

None.

Ethical considerations

Protection of humans and animals. The authors declare that no experiments involving humans or animals were conducted for this research.

Confidentiality, informed consent, and ethical approval. The authors have followed their institution's confidentiality protocols, obtained informed consent from patients, and received approval from the Ethics Committee. The SAGER guidelines were followed according to the nature of the study.

Declaration on the use of artificial intelligence. The authors declare that no generative artificial intelligence was used in the writing of this manuscript.

References

1. Vieira MJ, Campos S, Carvalheira F, Arruda H, Martins J, Sousa JP. Ankyloblepharon filiforme adnatum: case report and literature review. Revista da Sociedade Portuguesa de Oftalmologia. 2021;45:(N1):49–52.
2. Bordin G, Valerio E, Cutrone M. Ankyloblepharon filiforme adnatum in a newborn. Am J Perinatol Rep. 2015;5:e12–e13.
3. Armes H, Williams SA, Dunne J, Eccles SJ. Multidisciplinary management of ankyloblepharon filiforme adnatum. BMJ Case Rep. 2020; 13:e234249.
4. Patra P, Singh A. Ankyloblepharon filiforme adnatum in a new born. J Neonatal Surg. 2016;5(1):10.